

Claims

1. (original) A contact protection device, characterized in that a sensor (5) is provided for generating and detecting an electromagnetic field situated in the vicinity of a moving part (1) that should not be touched, that an evaluation unit (8) connected to the sensor (5) is provided in order to evaluate sensor signals that can be generated by the sensor (5), wherein the evaluation unit (8) can generate an evaluation signal, and that a control unit (9) connected to the evaluation unit (8) is provided, which is designed and used so as to control the movement of the part (1) as a function of the evaluation signal.

2. (original) The device according to claim 1, characterized in that the moving part (1) is the saw blade of a circular saw (30).

3. (currently amended) The device according to claim 1 ~~or 2~~, characterized in that another sensor (5.2) is provided, wherein the two sensors (5.1, 5.2) are positioned on the two sides of the saw blade (1).

4. (currently amended) The device according to claim 1 ~~or 2~~, characterized in that three additional sensors (5.2, 5.3, 5.4) are provided, wherein two sensors (5.1, 5.3; 5.2, 5.4) are positioned on each side of the saw blade (1).

5. (currently amended) The device according to ~~one of claims 1 to 4~~ claim 1, characterized in that the sensor (5) has a flat antenna (12) for generating electromagnetic waves.

6. (currently amended) The device according to ~~one of claims 1 to 5~~ claim 1, characterized in that the sensor (5) is positioned on the underside (4.1) of a jam guard (4) for the saw blade (1).

7. (currently amended) The device according to claim 5 ~~or 6~~, characterized in that an oscillatory circuit connected to the antenna (12) is provided and that the evaluation unit (8) is designed so that it can evaluate the detuning of the oscillatory circuit.

8. (currently amended) The device according to ~~one of claims 5 to 7~~ claim 5, characterized in that the waves that can be emitted by the antenna (12) lie in the range of the ISM band.

9. (original) A method for protection against contact with a moving part, characterized by means of the following steps:
a high-frequency electromagnetic signal is generated by an oscillatory circuit and an antenna (12),
an evaluation unit (8) detects and monitors a characteristic of the electromagnetic signal, and
based on the characteristic, a determination is made as to whether influence should be exerted on the movement of the moving part (1).

10. (original) The method according to claim 9, characterized in that the detuning of the oscillatory circuit serves as the characteristic.

11. (currently amended) The method according to claim 9 ~~or 10~~, characterized in that the resonance frequency (f_r) of the oscillatory circuit and/or the speed of the change in the resonance frequency and/or the resonance broadening serve as the characteristic.

12. (currently amended) The method according to ~~one of claims 9 to 11~~ claim 9, characterized in that a change in the torque of the moving part (1) is detected and the change is also used to determine whether influence should be exerted on the movement of the moving part (1).